This listing of claims replaces all prior versions of the claims.

Listing of Claims:

1. (currently amended) A recombinant immunoconjugate, comprising a therapeutic agent or a detectable label covalently linked to an RFB4 disulfide-stabilized Fv (dsFv) having a variable heavy chain (V_H) comprising SEQ ID NO:2 in which a Cys residue is substituted for Arg at position 44; and a variable light chain (V_L) comprising SEQ ID NO:4 in which a Cys residue is substituted for Gly at position 100.

2. (original) The recombinant immunoconjugate of claim 1, wherein said therapeutic agent is a toxin.

3. (original) The recombinant immunoconjugate of claim 2, wherein said toxin is a *Pseudomonas* exotoxin (PE) or a cytotoxic fragment thereof.

4. (original) The recombinant immunoconjugate of claim 3, wherein said cytotoxic fragment is PE38.

5. (cancelled)

6. (cancelled)

7. (previously presented) The recombinant immunoconjugate of claim 3, wherein said variable heavy (V_H) chain is covalently linked to the carboxyl terminus of said toxin.

8. (previously presented) The recombinant immunoconjugate of claim 5, wherein said V_H chain is covalently linked to said V_L chain through a linker peptide.

9. (previously presented) The recombinant immunoconjugate of claim 5, wherein said V_H chain is linked to said V_L chain through a cysteine-cysteine disulfide bond.

10. (original) The recombinant immunoconjugate of claim 8, wherein said linker peptide has the sequence of SEQ ID NO:5.

11. (previously presented) An expression cassette encoding a recombinant immunoconjugate comprising a sequence encoding for a toxin peptide and an RFB4 disulfide-stabilized Fv (dsFv) having a variable heavy chain (V_H) comprising SEQ ID NO:2 in which a Cys residue is substituted for Arg at position 44; and a variable light chain (V_L) comprising SEQ ID NO:4 in which a Cys residue is substituted for Gly at position 100.

12. (cancelled).

13. (original) The expression cassette of claim 11, wherein said toxin is a *Pseudomonas* exotoxin (PE) or a cytotoxic fragment thereof.

14. (original) The expression cassette of claim 11, wherein said cytotoxic fragment is PE38.

15. (cancelled)

16. (previously presented) The expression cassette of claim 12, further comprising a sequence encoding for a linker peptide having the sequence of SEQ ID NO:5.

17. (original) A host cell comprising an expression cassette of claim 11.

Claims 18-21 (cancelled)

22. (previously presented) A method for inhibiting the growth of a malignant B-cell that expresses a CD22 molecule on the surface of the cell, said method comprising:

contacting said malignant B-cell with an effective amount of a recombinant immunoconjugate of claim 1, thereby inhibiting the growth of the malignant B-cell.

23. (original) The method of claim 22, wherein said toxin is a *Pseudomonas* exotoxin (PE) or a cytotoxic fragment thereof.

24. (original) The method of claim 22, wherein said malignant B-cell is contacted *in vivo*.

25. (original) The method of claim 22, wherein said malignant B-cell is selected from the group consisting of: a rodent B-cell, a canine B-cell, and a primate B-cell.

26. (original) The method of claim 23, wherein said cytotoxic fragment is a PE38 fragment.

27. (cancelled)

28. (cancelled)

29. (previously presented) The method of claim 23, wherein a variable heavy chain is covalently linked at the carboxyl terminus of said toxin.

30. (previously presented) The method of claim 29, wherein said V_H chain is covalently linked to said V_L chain through a linker peptide.

31. (original) The method of claim 29, wherein said V_H chain is linked to said V_L chain through a cysteine-cysteine disulfide bond.

32. (previously presented) The method of claim 30, wherein said linker peptide has the sequence of SEQ ID NO:5.

Claims 33-49 (cancelled)